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TITLE : CONDUCTIVE RESIN COMPOSITION

ABSTRACT : PURPOSE: To obtain a resin composition which is inexpensive, can keep its excellent conductivity for a long time and does not adversely affect a wiring board by adding a copper powder specified in a mean particle diameter and an aspect ratio to an electron beam-curing resin.

CONSTITUTION: A conductive resin composition prepared by adding 100-900 pts.wt. copper powder having a mean particle diameter of 0.1-20 $\mu$ m and an aspect ratio of 0.2-0.005 to 100 pts.wt. electron beam-curing resin. As the electron beam-curing resin used, an epoxy acrylate resin formed by using a bisphenol A epoxy resin as a starting material is particularly desirable. With respect to the MW of the electron beam-curing resin, a higher MW is better than a lower MW since the conductivity is increased. This MW is desirably 1000-50000. The copper used can hardly give high conductivity when it has a mean particle diameter  $\leq$ 0.1 $\mu$ m or  $\geq$ 20 $\mu$ m, and it cannot give high conductivity when its aspect ratio is 0.2 or above. The appearance and surface smoothness are markedly lowered when the aspect ratio is 0.005 or below.

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